



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/663,257	09/16/2003	Wolfgang Beilfuss	0503-1154	2873

466 7590 08/31/2010
YOUNG & THOMPSON
209 Madison Street
Suite 500
Alexandria, VA 22314

EXAMINER

HAGOPIAN, CASEY SHEA

ART UNIT	PAPER NUMBER
----------	--------------

1617

NOTIFICATION DATE	DELIVERY MODE
-------------------	---------------

08/31/2010

ELECTRONIC

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

DocketingDept@young-thompson.com

Office Action Summary	Application No. 10/663,257	Applicant(s) BEILFUSS ET AL.	
	Examiner Casey S. Hagopian	Art Unit 1617	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 22 June 2010.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 18,21-25,30,31,35-48,57 and 58 is/are pending in the application.
- 4a) Of the above claim(s) 22,24 and 25 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 18,21,23,30,31,35-48,57 and 58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413) |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____ |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Receipt is acknowledged of applicant's Amendment/Remarks filed 6/22/2010.

Claims 18, 21, 23 and 35 have been amended. Claims 1-17, 19, 20, 26-29, 32-34, 45-56 and 59 have been cancelled. No claims have been added. Claims 22, 24 and 25 are withdrawn. Thus, claims 18, 21, 23, 30, 31, 35-48, 57 and 58 are currently under consideration.

Terminal Disclaimer

The terminal disclaimer filed on 6/22/2010 disclaiming the terminal portion of any patent granted on this application which would extend beyond the expiration date of 11/088428 has been reviewed and is accepted. The terminal disclaimer has been recorded.

WITHDRAWN REJECTIONS

Applicant's amendment renders the rejection(s) under 35 USC 112, 2nd paragraph moot. Specifically, applicant incorporated suggested amendments to overcome said rejection. Thus, said rejection under 35 USC 112, 2nd paragraph has been withdrawn.

The terminal disclaimer filed also renders the double patenting rejection moot. Thus, said double patenting rejection is withdrawn.

Art Unit: 1617

Rejections and/or objections not reiterated from previous Office Actions are hereby withdrawn. The following rejections and/or objections are either reiterated or newly applied. They constitute the complete set presently being applied to the instant application.

MAINTAINED REJECTIONS

The following rejections have been maintained from the previous Office Action dated 2/22/2010:

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of

Art Unit: 1617

the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

Claims 18-21, 30, 31, 35-48, 57 and 58 are rejected under 35 U.S.C. 103(a) as being unpatentable over Beilfuss et al. (US 2001/0021711 A1) in view of Ecanow et al. (USPN 4,452,780).

Beilfuss et al. teaches a stable microbicidal composition comprising a) at least one bactericidal N-formal, b) at least one fungicide and c) at least one stabilizer (claim 1). A preferred bactericidal N-formal is 3,3'-methylenebis(5-methyloxazolidine) (paragraph [0019]; claim 3). Beilfuss et al. teaches the N-formal is present in a concentration of from 1 to 99% by weight, preferably from 10 to 95% by weight, more preferably 20 to 90% by weight, in particular 40 to 90% by weight (claim 4) and the fungicide is present in a concentration of from 0.1 to 99% by weight, preferably 2 to 40% by weight, in particular 5 to 10% by weight (claim 7). Said percentages read on the ratios claimed in instant claims 18 and 35. Beilfuss et al. teaches said composition is free from iodopropynyl compounds and derivatives of benzimidazole or thiophene (paragraph [0027]). Beilfuss et al. further teaches that additional additives may be included in the compositions such as solvents, solubility promoters and corrosion-

Art Unit: 1617

protective agents (paragraphs [0023] and [0026]). Regarding instant claims 36-40, Beilfuss et al. teaches that the compositions are preferably anhydrous or have a low content of water (paragraph [0024]). It is noted that claims 37-39 contain the limitation, up to about X%. For instance, claim 37 limits the water content of the composition to be up to about 10%, which broadly reads on 0% or anhydrous. Regarding instant claims 41-48, Example 3 exhibits a composition comprising 90% of the N-formal 3,3'-methylenebis(5-methyloxazolidine) and about 2.5% of a fungicide (paragraph [0050]). Beilfuss et al. also teaches the preferred solvent, phenoxyethanol as well as amounts of solvent utilized in the composition including less than 50% by weight, preferably less than 35% by weight and in particular less than 25% by weight (claims 13 and 14).

It is noted that the instant claims are product claims and any intended use recitation such as "preservative" (all claims) or "is utilized for..." (claims 57 and 58) does not alone show patentable distinction. A recitation of intended use of the claimed invention must result in a structural difference between the claimed invention and the prior art in order to patentably distinguish the claimed invention from the prior art. In other words, if the prior art structure is capable of performing the intended use, then it meets the claim.

Beilfuss et al. is silent to urea.

Ecanow et al. teaches a composition possessing powerful germicidal, antiseptic, fungicidal and bacteriacidal properties comprising an active agent selected from iodine, urea or an iodophore or any combination thereof (abstract; claim 1). Thus, Ecanow et al. generically teaches urea as a known agent effective against fungus.

One of ordinary skill in the art at the time of the invention would have been motivated to include urea as the “at least one fungicide” with a reasonable expectation that said urea would impart effective fungicidal properties. Thus, in Beilfuss et al. it would have been obvious at the time the invention was made to include the fungicide, urea, as suggested by Ecanow et al.

Beilfuss et al. is also silent to some of the particular percentage ranges claimed in the instant claims 43-48, however it would be within the knowledge of one skilled in the art to optimize a composition by way of routine experimentation. As discussed above, Beilfuss et al. teaches the N-formal is present in a concentration of from 1 to 99% by weight, preferably from 10 to 95% by weight, more preferably 20 to 90% by weight, in particular 40 to 90% by weight (claim 4) and the fungicide is present in a concentration of from 0.1 to 99% by weight, preferably 2 to 40% by weight, in particular 5 to 10% by weight (claim 7). Example 3 exhibits a composition comprising 90% of the N-formal 3,3'-methylenebis(5-methyloxazolidine) and about 2.5% of a fungicide (paragraph [0050]). Beilfuss et al. also teaches the preferred solvent, phenoxyethanol as well as amounts of solvent utilized in the composition including less than 50% by weight, preferably less than 35% by weight and in particular less than 25% by weight (claims 13 and 14). Absent of unexpected results, a practitioner would have reasonably expected an optimized composition comprising 3,3'-(methylenebis(5-methyloxazolidine), urea and, if necessary, phenoxyethanol in the percentages claimed. Thus, it would have been obvious to one of ordinary skill in the art at the time the invention was made to optimize the composition and include the particular percentages claimed by applicant.

Response to Arguments

Applicant's arguments filed 6/22/2010 with respect to the rejection under 35 USC 103 over Beilfuss and Ecanow have been fully considered but they are not persuasive.

Applicant argues that the references do not teach the particular ratio of N,N'-(methylenebis(5-methyloxazolidine) to urea being about 100:1 to about 10:1. Applicant further argues that the reference does not teach a synergistic effect/unexpected result between said components that the Table in the Specification allegedly demonstrates. Applicant argues that that Table shows the combination of the two components reduces formaldehyde and the references do not teach such a reduction.

In response, it is respectfully submitted that Beilfuss teaches the N-formal is present in a concentration of from 1 to 99% by weight, preferably from 10 to 95% by weight, more preferably 20 to 90% by weight, in particular 40 to 90% by weight (claim 4) and the fungicide is present in a concentration of from 0.1 to 99% by weight, preferably 2 to 40% by weight, in particular 5 to 10% by weight (claim 7). Example 3 exhibits a composition comprising 90% of the N-formal 3,3'-methylenebis(5-methyloxazolidine) and about 2.5% of a fungicide (paragraph [0050]) which translates to a ratio of 36:1 and falls within the ratio ranges claimed. As discussed above, Ecanow teaches urea as a known fungicide. The teachings of the references indeed teach the composition as well as the ratios claimed. With regards to the alleged unexpected results, it is submitted that urea is a well known formaldehyde scavenger as evidenced by Brayer et al. (USPN 5,684,118, col. 1, lines 41-45), thus one of ordinary skill in the art would expect the

Art Unit: 1617

addition of urea to decrease the amount of formaldehyde in a composition. Thus, contrary to applicant's assertions, the "unexpected" results are not unexpected at all.

Thus, for these reasons, Applicant's arguments are found unpersuasive. Said rejection is maintained.

NEW REJECTIONS

In light of Applicant's amendments, the following rejection has been newly added:

Claim Rejections - 35 USC § 103

The text of those sections of Title 35, U.S. Code not included *here* can be found *supra* in this Office action.

Claim 23 is rejected under 35 U.S.C. 103(a) as being unpatentable over Beilfuss et al. (US 2001/0021711 A1) in view of Ecanow et al. (USPN 4,452,780) and as evidenced by "Grotan BK" on chemindustry.com.

Beilfuss and Ecanow teach the elements discussed *supra* including a composition comprising "at least one bactericidal N-formal" such as 3,3'-methylenebis(5-methyloxazolidine). It is noted the phrase "at least one" implies one or more N-formal or combinations of N-formals. Beilfuss further teaches the particular formal Grotan BK or 2,2,2"-(hexahydro-1,3,5-triazine-1,3,5-triyl)tri-ethanol). In instant claim 23, the claims are now drawn to the combination of 3,3'-methylenebis(5-methyloxazolidine) and another formal such as N,N',N"-tris(hydroxyethyl)hexahydrotriazine which is a synonym of Grotan BK as evidenced by the Grotan BK informational page on chemindustry.com. Thus, Beilfuss teaches the

Art Unit: 1617

particular combination of 3,3'-methylenebis(5-methyloxazolidine) and N,N',N''-tris(hydroxyethyl)hexahydrotriazine. Furthermore, as explained *supra* in the rejection under 35 USC 103 over the combination of Beilfuss and Ecanow, the combined teachings of Beilfuss and Ecanow and the evidence provided by chemindustry.com render the instant claim obvious.

Conclusion

All claims have been rejected; no claims are allowed.

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the date of this final action.

Art Unit: 1617

Correspondence

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Casey Hagopian whose telephone number is 571-272-6097. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Robert A. Wax, can be reached at 571-272-0623. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Casey S Hagopian/
Examiner, Art Unit 1615

/Carlos A. Azpuru/

Primary Examiner, Art Unit 1617